

REMARKS/ARGUMENTS

As of the Official action mailed April 21, 2004 claims 1-56 are pending with claims 17-56 withdrawn from consideration and claims 1-16 standing rejected. Reexamination and reconsideration of the application as amended and in view of the remarks herein is respectfully requested.

Amendments to the Specification

The title of the invention was objected to as not being clearly indicative of the invention to which the claims are directed. Accordingly, the title has been amended herein to read --NON-CONTACT POSITION SENSOR UTILIZING MULTIPLE SENSOR ELEMENTS--. Applicants respectfully submit that the amended title of the invention is descriptive of the claims subject matter. Accordingly, it is respectfully requested that the objection to the title be withdrawn upon reconsideration.

Claim Objections

Claims 1, 3, and 13 were objected to as including various informalities.

Regarding claim 1, the Examiner was unclear on how the position of a sensor control element is determined relative to the position sensor. Claim 1 has been amended herein to clarify that "each said sensor element configured to provide an output associated with each of a plurality of positions of a sensor control element, comprising a magnet, relative to said array of sensor elements". Applicants believe that this amendment clarifies the operation of the claimed device. It is, therefore, respectfully requested that this objection be withdrawn.

As suggested by the Examiner, claim 3 has been amended to replace "response movement" with --response to movement--. Applicants respectfully request that the objection to claim 3 be withdrawn upon consideration of this amendment.

Claim 13 was objected to as the scope of the claim was not clearly understood. Claim 13 has been amended herein to more clearly recite "wherein said coded magnet comprises said at least one North magnetized region disposed adjacent said at least one South magnetized region." Applicant believes that claim 13 now clearly requires that at least one North magnetized region of the coded and at least one South magnetized region of the coded magnet are disposed adjacent one another, rather than being spaced apart. In view of this clarifying amendment, Applicants respectfully request that the objection to claim 13 be withdrawn upon reconsideration.

Other Claim Amendments

Claim 1 has been amended herein to incorporate the subject matter of dependent claim 7 and intervening claim 6. As this amendment merely incorporated the subject matter of dependent claims into an independent claim, no new matter is believed entered. Consistent with this amendment, claims 6 and 7 have been cancelled from the instant application.

Based on the amendment of claim 1, claims 8 and 10-12 have been amended such that these claims depend upon independent claim 1, rather than now-cancelled claim 6.

Claim 14 has also been amended herein to correct a typographical error in the term "wherein".

Finally, claims 15 and 16 have been cancelled herein.

Rejections Under 35 U.S.C. §102

Claims 1-6 and 8-14 were rejected under 35 U.S.C. §102(b) as being anticipated by Tolmie, Jr. (U.S. Patent No. 5,029,304). Independent claim 1 has been amended herein to incorporate the subject matter of claim 7, which was correctly considered by the Examiner to be novel over Tolmie. In view of this amendment, Applicants respectfully submits that independent claim 1, and claims 2-6 and 8-14 ultimately depending upon claim 1, is no longer anticipated by Tolmie. It is, therefore, respectfully requested that this rejection be withdrawn upon reconsideration.

Rejections Under 35 U.S.C. §103

Claims 7 and 15-16 were rejected under 35 U.S.C. §103(a) as being obvious over Tolmie in view of Stegall et al. (U.S. Patent No. 6,352,137). Claims 15 and 16 have been cancelled herein, rendering the rejection thereof moot.

While claim 7 has been asserted to be obvious over Tolmie in view of Stegall et al., Applicants note that the Examiner does not, in fact, appear to apply Stegall et al. against claim 7. Rather, the Examiner refers to Sumcad (U.S. 5,500,589) in rejecting claim 7.

Regarding the rejection of claim 7, the subject matter of which has been incorporated into independent claim 1, Applicants respectfully submit that whether or not “the use of a biasing magnet would also [be] considered a common approach by the artisan to enhance the sensitivity of the device” is not the applicable standard for determining obviousness. Rather, making out a *prima facie* case of obviousness there must be, *inter alia*, some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in

the art, to modify the reference or to combine reference teachings. However, no teaching, suggestion, or motivation to combine the references is provided.

In this regard, Applicants submit that there is no teaching or suggestion to combine the teachings of Sumcad and Tolmie. In fact, based in the Written Opinion mailed July 26, 2004 of the corresponding PCT application, the Examiner apparently reached the same conclusion. As indicated in the Written Opinion, the Examiner determined that claim 7 is novel and includes inventive step as compared to the references therein.

Even assuming there was some teaching, suggestion, or motivation to combine the disclosure of Sumcad with the a sensor disclosed by Tolmie, it is respectfully submitted that the combined teachings thereof fail to achieve the invention of claim 1, as amended to incorporate the subject matter of claim 7. In column 1, lines 20-30, Sumcad discloses that “[s]ensors which use biasing magnets respond to a change in the magnetic field provided by a permanent magnet when a ferromagnetic object moves into a detection zone.” This disclosure appears to indicate the use of a magnet, a magnetic sensor, and a ferromagnetic object that can be moved into the detection zone of the sensor. Accordingly, the disclosed biasing magnet does not appear to be configured for “biasing said at least one of said sensor element to a selected output” as recited in claim 1. Accordingly, the combined teachings of Sumcad and Tolmie fail to achieve the claimed configuration.

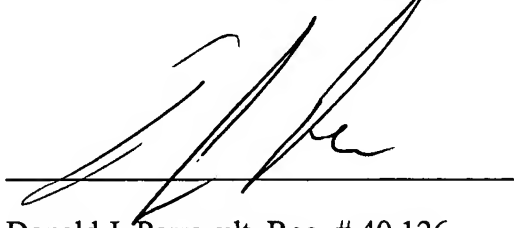
In view of the foregoing, Applicants respectfully submit that claim 1, as amended to incorporate the subject matter of claim 7 as well as that of intervening claim 6, is both novel and non-obvious over the cited references. Allowance of amended claim 1, as well as claims 2-5, and 8-14 ultimately depending thereupon, is respectfully requested.

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Amdt. dated Sept. 21, 2004
In response to Office action mailed Apr. 21, 2004

Having overcome all of the outstanding rejections, it is respectfully submitted that the application is now in condition for allowance. Early and favorable action is respectfully solicited.

In the event that there are any fee deficiencies, or additional fees are payable, please charge, or credit any overpayment to, our Deposit Account No. 50-2121.

RESPECTFULLY SUBMITTED,

A handwritten signature in black ink, appearing to read 'D. Perreault', is written over a horizontal line.

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